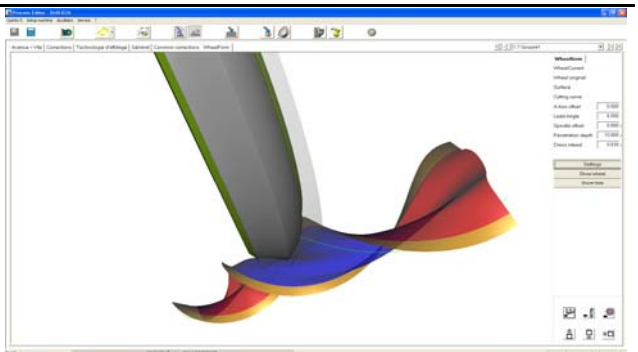
Application Data Sheet

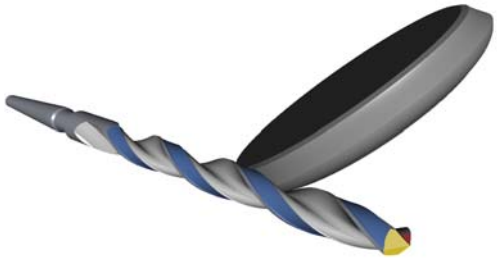
SCHNEEBERGER

HSS Drill Ø26 Z2

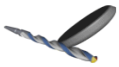
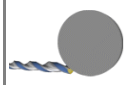
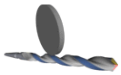
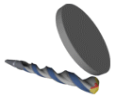
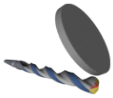
A05-054

Flutegrinding of large HSS drills can be done with dressable vitrified wheels, as long as the power the spindle and coolantpressure is strong enough. As the drill is submitted to high grinding pressure a strong steady rest is necessary. Wheelform design for the flutewheel is intergrated in Quinto, the wheelform is calculated based the given DXF of the fluteform.





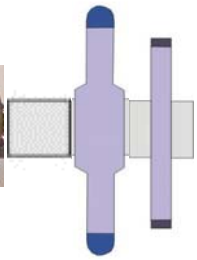
1. Cycletime for Production

Workpiece: Ø 26 mm, Z 2, Length 250 mm, Helix angle 32º, 18 passes of 0.5 mm for the flute Material HSS							
Operations	 Probe	 Flute 1	 Gashing	 O.D.2	 End 2	 End 1	 Dress
Feed [mm/Min]	2000	1000	100	150	60	80	100
Power [kW]		16	2	10	5	3	1
Cutting feed [m/s]		42	32	32	32	32	32
Used wheels		 1	 2	 2	 2	 2	 2
Grinding time [s]	8	896	33	252	44	35	69
Total cycle time		22 Min 17					

The cycle times are indicative. Material to be ground, grinding wheels, coolants can influence the cycle times considerably.

2. Used Grinding Wheels

1	DXF Ø200 C80
2	1A1 Ø125 B126



1 2

3. Machine and Software Requirements

Machines: GEMINI DMR 26 kW
Control: Fanuc 31i
Accessories: Steady Rest, Dressing

Coolant: Synthetic Oil, pressure 16 bar
Software: Quinto 5

Responsable engineer: OP, 14.4.11

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TECHNOLOGY FOR TOOLING